

Listing of Claims

1. (Currently Amended) A method of driving a plasma display panel, comprising ~~the~~ steps of:

applying a rising pulse to a scan electrode during a set-up interval of an initialization period, wherein the rising pulse changes to a second voltage after the rising pulse has changed to a first voltage, wherein the second voltage is higher than the first voltage;

applying a falling pulse to a scan electrode during a set-down interval of the initialization period, wherein the falling pulse changes to a fourth voltage after the falling pulse has changed to a third voltage, wherein the third voltage is higher than the fourth voltage;

applying a first waveform to a sustain electrodes in an initialization period electrode during a first time interval that is a portion of the set-up interval included in an initial sub-field of one frame; and

applying a second waveform to the sustain electrodes in an initialization period electrode during a second time interval that is a portion of the set-up interval of all or fewer than all of each of the remaining sub-fields following the initial sub-field, wherein the first waveform is different from the second waveform.

2. (Original) The method as claimed in claim 1, wherein said initial sub-field is at least one sub-field including the first sub-field of said frame.

3. (Original) The method as claimed in claim 2, wherein said initial sub-field is the first and second sub-fields of said frame.

4. (Original) The method as claimed in claim 1, wherein each of the remaining sub-fields other than the initial sub-field has a higher brightness weighting value than the initial sub-field.

5. (Currently Amended) The method as claimed in claim 1, wherein ~~said initialization period of the initial sub-field includes a~~ the set-up interval is for forming wall charges within cells by a writing discharge, and a the set-down interval is for erasing a portion of said wall charges by an erasure discharge, and wherein the sustain ~~electrodes are~~ electrode is electrically floated during the a first time interval that is a portion of said set-up interval.

6. (Currently Amended) The method as claimed in claim 5, wherein each ~~of said~~ initialization ~~period~~ periods of the remaining sub-fields other than the initial sub-field includes a set-up interval for forming wall charges within cells by a writing discharge, and a set-down interval for erasing a portion of said wall charges by an erasure discharge, and wherein the sustain electrode is ~~electrodes are~~ supplied with a ground voltage during the set-up interval.

7. (Currently Amended) The method as claimed in claim 5, wherein each ~~of said~~ initialization period ~~periods~~ of the remaining sub-fields other than the initial sub-field includes a set-up interval for forming wall charges within cells by a writing discharge, and a set-down interval for erasing a portion of said wall charges by an erasure discharge, and wherein the sustain electrode is ~~electrodes are~~ electrically floated during a shorter time than said first time interval in the set-up interval.

8. (Currently Amended) The method as claimed in claim 7, wherein a time interval when the sustain electrode is floated is set to be shorter as it goes into the last sub-field of said frame.

9. (Currently Amended) The method as claimed in claim 5, wherein a voltage rising at a first slope is applied to ~~derived into~~ the sustain electrode during said first time interval.

10. (Currently Amended) The method as claimed in claim 9, wherein each ~~of said~~ initialization period ~~periods~~ of the remaining sub-fields other than the initial sub-field includes a set-up interval for forming wall charges within cells by a writing discharge, and a set-down interval for erasing a portion of said wall charges by an erasure discharge, and wherein a voltage rising at a lower slope than said first slope is applied to the sustain electrode during said first time interval.

11. (Original) The method as claimed in claim 10, wherein said voltage applied to the sustain electrode is set to have a lower slope as it goes into the last sub-field of said frame.

12. (Currently Amended) A method of driving a plasma display panel, comprising the steps of:

applying a rising pulse to a scan electrode during a set-up interval of an initialization period, wherein the rising pulse changes to a second voltage after the rising pulse has changed to a first voltage, wherein the second voltage is higher than the first voltage;

applying a falling pulse to a scan electrode during a set-down interval of the initialization period, wherein the falling pulse changes to a fourth voltage after the falling pulse has changed to a third voltage, wherein the third voltage is higher than the fourth voltage;

applying a first waveform to a sustain electrode during a first time interval that is a portion of the set-up interval ~~electrodes in an initialization period~~ of a sub-field having a low weighting value at one frame; and

applying a second waveform to the sustain ~~electrodes in an initialization period~~ electrode during a second time interval that is a portion of the set-up interval of all or fewer than all of each of the remaining sub-fields other than the initial sub-field having said low brightness weighting value, wherein the first waveform is different from the second waveform.

13. (Original) The method as claimed in claim 12, wherein said sub-field having said low brightness weighting value includes at least one sub-field having a brightness weighting value that is less than a half of the maximum brightness weighting value of said frame.

14. (Currently Amended) The method as claimed in claim 12, wherein said ~~initialization period of said sub-field having said low brightness weighting value includes~~ a set-up interval is for forming wall charges within cells by a writing discharge, and said a set-down interval is for erasing a portion of said wall charges by an erasure discharge, and wherein the sustain electrode is ~~electrodes are~~ electrically floated during the ~~a~~ first time interval that is a portion of said set-up interval.

15. (Currently Amended) The method as claimed in claim 14, wherein each ~~of said~~ initialization period ~~periods~~ of the remaining sub-fields other than said sub-field having said low brightness weighting value includes a set-up interval for forming wall charges within cells by a writing discharge, and a set-down interval for erasing a portion of said wall charges by an erasure discharge, and wherein the sustain electrode is ~~electrodes are~~ supplied with a ground voltage in the set-up interval.

16. (Currently Amended) The method as claimed in claim 14, wherein each ~~of said~~ initialization period ~~periods~~ of the remaining sub-fields other than said sub-field having said low brightness weighting value includes a set-up interval for forming wall charges

within cells by a writing discharge, and a set-down interval for erasing a portion of said wall charges by an erasure discharge, and wherein the sustain electrode is ~~electrodes are~~ electrically floated during a shorter time than said first time interval in the set-up interval.

17. (Original) The method as claimed in claim 16, wherein a time interval when the sustain electrode is floated is set to be shorter as it goes into a sub-field having a higher brightness weighting value.

18. (Currently Amended) The method as claimed in claim 14, wherein a voltage rising at a first slope is applied to ~~derived into~~ the sustain electrode during said first time interval.

19. (Currently Amended) The method as claimed in claim 18, wherein each ~~of said~~ initialization period ~~periods~~ of the remaining sub-fields other than said sub-field having said low brightness weighting value includes a set-up interval for forming wall charges within cells by a writing discharge, and a set-down interval for erasing a portion of said wall charges by an erasure discharge, and wherein a voltage rising at a lower slope than said first slope is applied to the sustain electrode during said first time interval.

20. (Original) The method as claimed in claim 19, wherein said voltage applied to the sustain electrode is set to have a lower slope as it goes into a sub-field having a higher brightness weighting value.

21. (New) A method of driving a plasma display panel, comprising:

applying a first waveform to one or more sustain electrodes in an initialization period included in an initial sub-field of one frame; and

applying a second waveform to the one or more sustain electrodes in an initialization period of all or fewer than all of the remaining sub-fields following the initial sub-field of said frame, wherein each of said initialization periods of the initial sub-field and remaining sub-fields includes a set-up interval for forming wall charge within at least one cell by a writing discharge and a set-down interval for erasing a portion of said wall charges by an erasure discharge,

wherein the first waveform is applied to allow the one or more sustain electrodes to electrically float during a first time interval that is a portion of said set-up interval and wherein the second waveform is different from the first waveform and is applied during a second time interval that is a portion of said set-up interval.

22. (New) The method of claim 21, wherein the second waveform supplies the one or more sustain electrodes with a ground voltage during the set-up interval of all or fewer than all of the remaining sub-fields.

23. (New) The method of claim 21, wherein the second waveform allows the one or more sustain electrodes to be electrically floated during a shorter time than the one or more sustain electrodes that are allowed to be electrically floated when the first

waveform is applied during said first time interval in the set-up interval of the initial sub-field.

24. (New) The method of claim 21, wherein the first waveform allows the one or more sustain electrodes to have a voltage rising at a first slope during said first time interval in the set-up interval of the initial sub-field.

25. (New) The method of claim 21, wherein the second waveform allows the one or more sustain electrodes to have a voltage rising at a second slope different than said first slope during said first time interval in the set-up interval of all or fewer than all of the remaining sub-fields.